

# Aero Design Ltd.

## Work Order Control Sheet

Work Order#: 2017-54 Date Opened: 28-Mar-17 Title: Assembly

Aircraft OEM: Airbus Helicopters Aircraft Model: AS350 Product Type: Bike Rack Product Model: Base Quantity: 3 LH / 3RH

### Work Order Contents

Work Order/Build Sheets (Procedures Provided)  
Additional Work Sheets (Standard Practice)  
Drawings (See List Below)  
Parts Distribution Sheet  
Sub Component Tags  
Completed Certification (Original)  
Time Sheet (R&D)  
Notes

Initial or N/A

DM
N/A
DM
DM
N/A
JC
N/A
N/A

### Build Sheet Contents

Tasks Initialled  
Dual Inspections Initialled

Initial or N/A

JC
JC

### Drawing List

Drawing #	Rev #	Description	Initial or N/A
100215	0	Bike Rack Base Ass'y	DM

### Traveller

Initial or N/A


Work performed by:

Print: D. Martyn

ICC / Dual Inspection performed by:

Print: J. Rekve

Work Order closed by:

Print: J. CLARKE

Approved Manufacturing Facility 73-04

Sign: [Signature]

Sign: [Signature]

Sign: [Signature]

Form 20.D/03

### Component Completion

Quantity Complete on This Work Order  
Quantity Incomplete on This Work Order  
Further Processing Required Before Release  
Release to Stock as Components

As Instructed

3/3
N/A
N/A
N/A

### Certification

Form One Completed  
Serviceable (Green) Tag Completed  
In Process (Yellow) Tag Completed  
Unserviceable (Red) Tag Completed  
Parts Placed in Stores for Distribution

Initial or N/A

N/A
JC
JC
N/A
JC

### Additional Documentation

Documentation of a minor change  
Non-Conformance Report Required  
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

### Billing

Local (Aero Design)  
Research and Development  
Third Party

Initial or N/A

JC
N/A
N/A

SCA: AD05

SCA: AD01

SCA: AD02

Date: 29-Mar-17

Date: 29-Mar-17

Date: 28 MAY 2018

Rev. Original 23 Sep 2014



# Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 100215-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-54-02

Remaining Tasks to be Performed: Prep for powder,  
powder coat. Assembly JC

Signature: David Martyn

Date: March 29/2017 Lic. No. / SCA AD-05

In Process



## Aero Design Ltd.

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AMF 73-04

In Process

Remarks

Insp for powder 30 Mar 17 OK

powder complete 12 APR 2017 JC.



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 100215-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-54-05

Remaining Tasks to be Performed: Prep for powder,  
powder coat. Assembly etc.

Signature: David Martyn

Date: March 29 / 2017 Lic. No. / SCA AD-05

In Process



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AMF 73-04

In Process

### Remarks

145p for powder 30 Mar 17 OK

Powder complete 12 APR 2017 JC.





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AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 100215-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-54-01

Remaining Tasks to be Performed: Prep for powder,  
powder coat. Assembly. QC.

Signature: David Marty

Date: March 29 / 2017 Lic. No. / SCA AD-05

In Process



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

1sp for powder 30 Mar 17 OK

Powder complete 12 MAR 2017 J. 12 APR 2017 J.



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 100215-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-54-03

Remaining Tasks to be Performed: Prep for powder,  
powder coat. Assembly. JC

Signature: David Marty

Date: March 29/2017 Lic. No. / SCA AD-05

In Process





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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: [info@aerodesign.ca](mailto:info@aerodesign.ca)

AMF 73-04

In Process

Remarks

Insp for powder 30 Mar 17 OK

Powder complete 12 Apr 2017 J.



## Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

Base AMF 73-04

Nomenclature: AS350 Bike Rack No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 100215-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-54-06

Remaining Tasks to be Performed: Prep for powder,  
powder coat. Assembly. g.

Signature: David Thayer

Date: March 29/2017 Lic. No. / SCA AD-05

In Process



## Aero Design Ltd.

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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

### Remarks

Insp. for powder 30 Mar 17 OK

Powder complete 12 MAR 2017 OK.  
12 APR 2017 OK.



## Aero Design Ltd.

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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 100215-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-54-04

Remaining Tasks to be Performed: Prep for powder,  
powder coat. Assembly.

Signature: David Marty

Date: March 29/2017 Lic. No. / SCA AD-05

In Process



## Aero Design Ltd.

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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

Insp for powder 30 Mar 17 CR

Powder complete 12 APR 2017 JK

2017-54

[illegible]



# Aero Design Ltd. Component Fabrication

Work Order Number: 2017-54

100215-01 Bicycle Rack Base

Date: March 2017

## Notes:

Drilling speed to 320 RPM.

Rapid Tap cutting fluid or equivalent coolant required

## Rail

Tasks	SCA
1. Record material PO below	
2. Cut 78230 step extrusion to 82.75" in length	
On each end, cut the side and bottom walls shorter by 1/8" leaving the tread rail full length IAW drawing 100215 Detail B	N/A stock parts
3. Deburr one end on buffing wheel	OK
4. On the bottom wall, place a mark 7/8" from each end and drill 3/8" hole which will act as a drain and allow ventilation during the welding process	

## Manual Mill

5. While supporting the long end of the rail, clamp aft end (dependant on LH or RH) into the manual mill vice	
6. Using standard practices, zero off of the end and back of the part and set zero on the X and Y axis on the digital display	N/A stock parts
7. Set table to drill locations IAW drawing 100215 Detail C and bore .75" holes	OK
8. Deburr edges and holes	

## Welding

9. Wipe parts with Acetone or equivalent solvent	
10. Place 100226-01 bushings in .75" holes and locate them IAW drawing 100215 Detail C	
11. Weld IAW drawing 100215	N/A stock parts
12. Place cap 82720-04 on each end and weld IAW drawing 100215 Detail B	OK

## Beam

13. Cut 1" x 8" 6061-T6 extruded bar to 24 7/8" in length.	
14. Install material in CNC mill ensuring RH edge overhangs for tool clearance	
15. Set material stop to ensure subsequent steps and parts return to the same location	
16. Load and run program 021 and 022	N/A stock parts
17. Rotate part 180 degrees on plane	OK
18. Load and run program 021 and 022	
19. Separate parts by cutting along mark scribed during machining process	

20.	Install 100230 jig plate into CNC straddling vices and lock down	
21.	Using a soft face hammer, tap the jig down to ensure it is seated	
22.	Zero table using standard practices	
23.	Mount separated part on jig using 1/4" bolts	N/A stock parts
24.	Load and run program 023	OK
25.	Using vertical band saw, remove tooling lug at the outboard end	
26.	On manual mill, zero off the end of the part using standard machining practices	
27.	Using standard practices, machine surface area from which lug was removed	
28.	Inspect finish and dimensions of final part.	

#### Rack Base Assembly

29.	Insert Helicoils in threaded bushings IAW drawing 100226	DB
30.	Install bike rack base beams into jig fixture	DRM
31.	Install rails into beams	DRM
32.	Weld IAW drawing 100215	DRM
33.	Inspect finish and dimensions of final part.	OK
34.	Tag completed parts IAW Aero Design MPM.	OK

Material Purchase Order Number See PDS

Batch Quantity 3 L/H 3 R/H



WO# 2017-5401 to 06

[illegible]



Suspect ☐ Checked OK ☒ To Continue

# TASK TAG

Cond. Yellow ☒ Green ☐ Red ☐



Aero Design Ltd.

AMF 73-04

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Powell River, BC, V8A 0G3  
Phone: 604-483-2376  
Fax: 604-483-2372  
Email: info@aerodesign.ca

Work Order: 2017-54-01

☐ Copy #: \_\_\_\_\_  
Copies to be used for completed parts or assemblies

Nomenclature: AS350 Bike Rack Base L/H Total Quantity: 1

Part No.: 100215-01 Serial No.: NSN Batch/PO No.: NA

Manufacturer: ☒ Aero Design Ltd. ☐

Created by: \_\_\_\_\_ Date: March 2017 SCA: \_\_\_\_\_

Closed by: \_\_\_\_\_ Date: \_\_\_\_\_ SCA: \_\_\_\_\_

Task Sheet: \_\_\_\_\_ Work Order: \_\_\_\_\_

Task #	SCA	SCA	SCA	SCA
1. 30	Qty: <u>1</u> Date: <u>March/2017</u> AD 73-04 05	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
2. 31	Qty: <u>1</u> Date: <u>March/2017</u> AD 73-04 05	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
3. 32	Qty: <u>1</u> Date: <u>March/2017</u> AD 73-04 05	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
4. 33	Qty: <u>1</u> Date: <u>30 Mar 17</u> AD 73-04 01	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
5. 34	Qty: <u>1</u> Date: <u>30 Mar 17</u> AD 73-04 01	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
6.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
7.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
8.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
9.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
10.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____

Note: Qty may be left blank if all parts are covered by one stamp.

Continued on back ☐

Remarks:

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Task #	SCA		SCA	
11.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
12.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
13.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
14.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
15.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
16.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
17.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
18.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
19.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____
20.	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____	Qty: _____ Date: _____